

UNITED STATES PATENT APPLICATION

FOR

**METHOD AND APPARATUS  
FOR WAGERING ON A  
RANDOM CHANCE EVENT**

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## FIELD OF THE INVENTION

This invention relates to the field of computer software. More specifically the invention relates to a method and apparatus that enables one or more players to  
5 wager on a random chance event.

This application claims the benefit of United States Provisional Patent Application No. 06/263,396, filed January 22, 2001.

## BACKGROUND OF THE INVENTION

Existing computer gaming environments provide users with the ability to  
10 play electronic versions of many different types of casino games. For example, online casinos have electronic versions of blackjack, roulette, slot machines, poker, stud poker and may other forms of poker. Although many different types of individuals enjoy such games these casino games require the user to have familiarity  
15 with the rules applicable to each games. The number of variants of poker and the different types of rules associated with each type requires that each player have a certain level of knowledge about the game before initiating play. Online casinos lack games that novice users can play. For example, existing online casinos do not have a game that anyone can quickly learn how to play. Thus, there is a need for  
20 network-based games that do not require the player to understand a complex set of

rules. Another problem that users who wish to wager online face is that the odds associated with the various games described above are not in the users favor. For example, the odds associated with casino games are usually less than 50% . Thus, users desire to have access to a games that provide more favorable odds that existing wager based games.

Another problem associated with many online gaming environments is that the user is required to download large programs before playing. This is a time consuming process that can lead to a decreased interest in gaming activities. Thus, there is a need for an online gaming system that does not require the user to download large install programs. Moreover, there is a need for a computer gaming environment that does not require the user to install the program locally.

## SUMMARY OF THE INVENTION

An embodiment of the invention comprises a gaming environment that enables players to wager on the final disposition of a random chance event. For instance, the invention provides players with a way to wager on the outcome of a simulated coin flip, the roll of a dice, or any other random chance event. Note that hereinafter references to the term "coin" mean a simulated coin presented graphically on a computer screen and the references to flipping mean an animation process that animates the coin to appear to be flipping. The invention does not utilize a real coin and no actual flipping of a real coin ever occurs. Instead, a random or pseudo-random number generator determines the outcome of each game.

The player sets a wager, registers an anticipated prediction (e.g., heads or tails) of the coin, and then initiates the flipping of the coin via a gaming interface that is connected to a gaming engine. The player wins when the gaming engine determines the registered anticipated outcome is the same as the final disposition of the coin. If, for example, the player indicated that the simulated coin would land heads-up, and the random number generator indicates the simulated coin landed head-up, that player would be declared a winner. When the player wins the player receives an increase in the player's account balance equal to a certain percentage (e.g. one hundred percent (100%)) of the wagered amount. The amount credited to the player is then deducted by a percentage referred to as the game fee. The game fee is defined as any percentage subtracted from the players winnings. If the game fee is 10%, for example, then a ten percent (10%) fee on winnings is paid to and collected by the site operator. Thus, in this instance, the player has a net gain of

ninety percent (90%) on the wager. However, the gain varies depending upon the amount of the game fee.

In the event that the registered prediction differs from the final disposition of the coin (e.g., the player predicted heads and the simulated coin landed on tails), the entire wagered amount is subtracted from the account balance. The random number generator provides players with odds akin to that of an actual coin flip. Thus, the odds of winning in accordance with one embodiment of the invention are mathematically fifty percent (50%) each time the user flips the simulated coin.

The player enters the wager prior to the simulated random chance event (e.g. the coin flip). In one embodiment of the invention, the gaming interface allows the player to set a wager and displays the amount the player selects. Once the player finalizes the wager amount, and that amount is above a minimum wager amount, the player is eligible to begin play of the game. When the player's wager has met or exceeded the minimum wager, the player will have the opportunity to pick the wagered outcome of the random chance event (e.g., heads or tails). If the player does not choose an outcome, the game will default to a certain choice (e.g., either heads or tails).

The player is provided with an opportunity to change the wagered outcome prior to initiation of the flip operation. Once the player has decided upon an amount to wager, the player may select a play button to initiate the simulated flipping operation. Upon selection of the play button the game engine executes the random generator which simulates the occurrence of a random chance event such as

the flipping of coin. After the player has flipped the coin by clicking the play button, the simulated coin will flip and eventually land showing either heads or tails as determined by the random number generator. If the coin and the selected wagered outcome are the same, then the player is a winner and the player's account will be increased by the amount wagered less the game fee percentage. If the coin and the selected wagered outcome are not the same, then the player loses on the wager and the player's account will be decreased by the amount wagered by the player.

When a player desires a return of the account balance, then the player may utilize the gaming interface to provide instructions for the distribution.

## BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 comprises a flow chart illustrating the process utilized in one embodiment of the invention to play a virtual game of chance.

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Figure 2 illustrates an example gaming interface in accordance with one embodiment of the invention.

Figure 3 illustrates a general-purpose hardware environment utilized to implement an embodiment of the invention.

## DETAILED DESCRIPTION

A method and apparatus for wagering on a random chance event is described. In the following description, numerous specific details are set forth to provide a more thorough description of embodiments of the invention. It will be apparent, however, to one skilled in the art, that the invention may be practiced without these specific details. In other instances, well known features have not been described in detail so as not to obscure the invention.

### Online Gaming System:

An embodiment of the invention provides users with a gaming interface that allows the user to wager on a random chance event such as the toss of a simulated coin. A gaming engine coupled to the gaming interface via an interconnection fabric such as the Internet simulates the occurrence of a random chance event. In contrast to current Internet based casino games, the present invention requires little or no learning curve. Moreover, wagering on a random chance event provides players with significantly better odds than other casino games (e.g., poker, slots, blackjack, roulette, etc...). The gaming engine may simulate multiple kinds of random chance events (e.g., the flip of a coin) and provides users with a way to wager on the outcome of such events. Thus players may use an embodiment of the invention to wager on the outcome of a random chance event such as the simulated flip of a coin. If the player properly guesses the outcome of the random chance event, the hosting entity credits the amount wagered to the player minus a game fee. When the player



loses the amount wagered is deducted from the players account. The invention also contemplates other embodiments that will be addressed in further detail below.

Figure 1 comprises a flow chart illustrating the process utilized in one embodiment of the invention to execute the game of chance. In one embodiment computer software or hardware is configured to present players with a gaming interface (see e.g., step 100) that allows the entry of certain game parameters. The gaming interface may be distributed from a server computer or installed on a player's local machine. The user may use the gaming interface to set parameters such as a wager amount (see e.g., step 102), game type, or game outcome.

Once the player enters an amount above the minimum wager into the gaming interface, the player is eligible to begin play of the game. When the player's wager meets or exceeds the minimum wager and is still below any establish maximum wager (see e.g., step 103), the player is given the opportunity to predict the outcome of the random chance event (e.g., heads or tails). The game outcome therefore comprises a registered prediction that identifies a possible outcome of the random chance event (e.g., heads or tails of the simulated coin toss). The prediction must be made prior to the occurrence of the event itself. Thus, if a player wishes to predict that the next simulated coin flip initiated by that player will result in the coin landing on "heads", the player must enter that prediction prior to the simulated coin flip. If the player does not choose an outcome, the game may default to a certain choice (e.g., either heads or tails) where that choice is optionally based on the last option selected by the player. In other embodiments of the invention, the player may select a predicted outcome once the player is determined to be eligible for play.

When the wager and predicted outcome are finalized, the player is optionally provided with an opportunity to change the wagered outcome or amount prior to initiation of the flip operation. Once the player has decided upon a predicted outcome (e.g., at step 104) and an amount to wager (e.g., at step 102), the player may select a play button. When the player depresses the play button the gaming engine executes the random number generator (e.g., at step 106). The random number generator simulates the occurrence of a random or pseudo-random chance event such as the flipping of coin. In one embodiment of the invention, the gaming engine comprises a random number generator. The gaming engine may be located at the game server (see. e.g., Figure 3, game server 326) and configured to store the result of the random operation in a database associated with the game server. For example, the result of the random number generator may be stored on a server computer (e.g., a game server having a gaming engine) and that number may then be utilized to calculate the amount that is to be credited or deducted from the player's account. If the player wins, then the player's account may be credited. However, if the player loses, the amount of the wager may be deducted from the player's account.

In one embodiment of the invention, the random number generator is configured to statistically operate in accordance with the item the game is intended to simulate. If, for example, the flip operation emulates the toss of a coin, the random number generator will operate so that the chances of winning are mathematically 50% for each flip.

When the gaming engine has finished executing the flip operation, it transmits the result to the gaming interface. The gaming interface comprises a

Graphic User Interface (GUI) that optionally provides the user with a way to view the flip operation. The gaming interface may, for instance, optionally show an animated representation of a coin toss that illustrates the result of the flip operation to the player (see e.g., step 107). In one embodiment of the invention, for example, after the player has flipped the coin by clicking the play button, the gaming interface shows a simulated coin that flips and eventually lands showing either heads or tails as determined by the random number generator. The animation may occur before or after the players account balance is adjusted to reflect the result of the wager. For instance, the animation (see e.g., step 107 where the system presents a visual representation of the random chance event) may also occur after steps 108 through 116 are executed.

Upon completion of the visual representation of the flip operation, the gaming engine compares the derived result with the player's initial selection. At step 108, for example, the gaming engine determines if the result of the flip operation matches the prediction obtained from the player at step 104. If the result matches, the player is declared a winner and a percentage of the amount wagered is credited to the players account. The amount credited may vary depending upon the game fee established by the hosting entity. The game fee comprises a certain percentage or amount subtracted from the players winnings. If the game fee is 10%, for example, then a ten percent (10%) fee on winnings is paid to and collected by the site operator. Thus, in this instance, the player has a net gain of ninety percent (90%) on the wager. However, the gain varies depending upon the amount of the game fee.

A specific example follows: if the game fee equals zero, the player is credited with an amount equal to the amount wagered. When the game fee is greater than zero, the amount of the fee is deducted from the amount awarded to the winner for properly predicting the result of the flip operation (see e.g., steps 112 and 114). If, for example, the player wagers \$5.00 and the result of the flip operation indicates the coin landed on the side the player predicted, the player wins an additional \$5.00 minus the percentage referred to as the game fee. If the game fee is 10%, for example, and the player wins on a wager of \$5.00, the player will receive back the amount wagered (e.g., \$5.00) plus 100% of the amount wagered minus the 10% fee. Thus in the case of a win on a \$5.00 wager (where the game fee is 10%) the player wins \$4.50 plus the initial wager for a total of \$9.50. The amount of the game fee may be fixed, but the invention does not require that the amount be fixed. For example, the game fee may vary when the user wagers a certain threshold amount. If the user wagers over a certain amount, the game fee may be increased or decreased by the entity representative of the house or any other entity with authorization to modify the game fee. Once the game fee is deducted from the winnings, the remainder is credited to the players account (see e.g., step 116).

In the event that the result of the flip operation does not match the selection obtained from the user, step 110 executes. At step 110, the system subtracts the amount wagered from the players account if the amount wagered was not subtracted prior to the flip operation. In one embodiment of the invention, for example, the amount wagered is subtracted prior to the flip and then credited back if the player wins. Regardless of whether the players wins or loses, the player is

presented with the opportunity to play another game. If the player issues a repeat play command without modifying the game parameters, the game may utilize the same parameters previously entered by the player. The game may also utilize a set of defaults. If the player does not initiate a repeat play command (e.g., at step 118), the game ends (see e.g., step 120). Otherwise the process illustrated by Figure 1 is repeated with the same or different game parameters.

Wager Type:

An embodiment of the invention contemplates the use of multiple wager types. The wager amount may be representative of an actual monetary amount or it may represent some other item or form of credit. The items may be tangible or intangible. The wager may, for example comprises "fun money" or some other none monetary based form of credit. In one embodiment of the invention, the credit amount is representative of a reward for some action performed by the player. The amount may, for instance, be credit obtain from viewing an advertisement, completing a form, or some other desirable action. Non-monetary based credits need not be the result of actions related to the game itself but may instead be related to action independent of the game. In the instance where the player wishes to wager an actual monetary amount (e.g., U.S. dollars or some other currency), the game interface provides the user with a way to submit an amount to wager. The game interface may, for instance, enable the user to deposit sums of money in an account for purposes of playing the game of chance.

## Gaming Interface:

Figure 2 comprises an example of the gaming interface presented to the user in accordance with one embodiment of the invention. The gaming interface may also provide the player with a way to enter a prediction about the outcome of other simulated random chance events. Thus, the invention is not limited solely to providing users with way to guess the outcome of a simulated coin flip. Referring now to Figure 2, an example of a gaming interface 200 is shown. A brief description of each element and the functionality associated with that element follows:

Menu Bar 201: Players and other visitors may utilize menu bar 201 to navigate the site for various options and other such information. Menu bar 201 comprises home button 202, cashier button 204, how to play button 206, stats button 208, about us button 210, contact us button 212, exit button 214, minimum bet button 216, and maximum bet button 218. Home button 202 returns the player to a particular predetermined screen upon selection. When cashier button 204 is selected is provides the user with an interface for redeeming winnings or depositing money (real or fun money) or other credits/items for play. The cashier interface may provide the user with a way to convert winnings into actual cash or some other monetary form. How to play button 206 provides users with an explanation of how to play the game and may also explain the rules associated with the game. Stats button takes the player to a password-protected section where the player can access a play history. The play history shows the total number of wages, number of wins, loses, number of flips, etc. About us button and contact us button provide the user with informative information about the game provider and how to contact the game

provider. Exit button 214 causes the game to exit. Minimum bet display 216 and maximum bet display 218 display the respective minimum and maximum a particular player is allowed to bet. The minimum and maximum may vary depending upon the player or the usage patterns associated with one or more players.

Wager Interface 226: Players may utilize wager interface 226 to set the amount the player wishes to wager. Wager interface 226 may comprises multiple windows for adding a predetermined amount to the total. In one embodiment of the invention, for example, wager interface 226 comprises a one-dollar window, a five-dollar window, twenty-five dollar window, and fifty-dollar window. When the user selects the (+) or (-) button next to each denomination that amount is added to the total wager. Players can easily change their mind by hitting "clear" and also can add or subtract by clicking on the plus (+) or minus (-) symbols next to each dollar value. In other instances, the player may simply enter the amount the player wishes to wager or select an amount for a set of predetermined amounts.

Current Bet 224: displays the wager amount the player has selected for each game.

Choose Button 222: The choose button 222 provides the player with a way to identify the outcome of the random chance event that the player thinks will occur. For example, in accordance with one embodiment of the invention the player may identify which side of the coin (e.g., heads or tails) will be face up after the simulated

coin toss. The choose button illustrates a coin that flips each time the user selects the coin. The coin side face up is the player's final selection.

Play Button 220: When the player is finished entering game parameters, the player may select the play button to begin playing the game. When the user  
5 depresses the play button, an animation is displayed in animation window 228. The animation illustrates the occurrence of the random chance event the player has wagered upon. The animation may, for example, show a coin being flipped. The result of the animation is dependent upon the result determined by the random number generator.

Balance 230: Calculates and displays the players wins and losses from each  
10 wager. Balance window 230 may track all forms of wagers whether those wagers be something of actual monetary value or some other wagered item (e.g., credits, fun money, or any other tangible or intangible item).

Last Win 232: At the end of each game the win from that game may be  
15 displayed in the last win 232 window. In one embodiment of the invention, the odds of winning are mathematically a 50% for each occurrence of the random chance event. Winning is a purely random event. When the player selected one of the coin sides that matches the game result the player wins an amount equal to the amount of the wager. However, in some instances, (e.g., when real money is wagered), the  
20 player wins an amount equal to the amount of the wager minus a certain game fee. Last win 232 reflects the amount remaining after the game fees has been deducted. The game fee can be any number the site provider elects to use.



Repeat Button 234: As soon as the player completes a game, Repeat button 234 becomes active. If the player selects the repeat button 234, the last wager is repeated. Thus, after playing one game the player can elect to repeat the last wager or select a new wager by using the commands in the wager interface.

5        Last Bet button 231: In one embodiment of the invention the gaming interface comprises a last bet button 231 which displays the amount of the players last wager.

Computer Execution Environment (Hardware):

10        An embodiment of the invention can be implemented as computer software in the form of computer readable code executed on a general purpose computer such as computer 300 illustrated in Figure 3, or in the form of byte code class files executable within a Java™ runtime environment running on such a computer, or in the form of byte codes running on a processor (or devices enabled to process byte codes) existing in a distributed environment (e.g., one or more processors on a network). In the instance where a general purpose computer is utilized to display the gaming interface. The computer obtains input from the user via a keyboard 310 and/or mouse 311 which are coupled to a system bus 318. The keyboard and mouse are for introducing user input to the computer system and communicating that user input to processor 313. Other suitable input devices may be used in addition to, or in place of, the mouse 311 and keyboard 310. I/O (input/output) unit 319 coupled to system bus 318 represents such I/O elements as a printer, A/V (audio/video) I/O, etc.

Computer 300 includes a video memory 314, main memory 315 and mass storage 312, all coupled to system bus 318 along with keyboard 310, mouse 311 and processor 313. The mass storage 312 may include both fixed and removable media, such as magnetic, optical or magnetic optical storage systems or any other available mass storage technology. Bus 318 may contain, for example, thirty-two address lines for addressing video memory 314 or main memory 315. The system bus 318 also includes, for example, a 64-bit data bus for transferring data between and among the components, such as processor 313, main memory 315, video memory 314 and mass storage 312. Alternatively, multiplex data/address lines may be used instead of separate data and address lines.

In one embodiment of the invention, processor 313 is microprocessor manufactured by Intel, such as the 80X86, or Pentium processor. However, any other suitable microprocessor or microcomputer may be utilized. Main memory 315 is comprised of dynamic random access memory (DRAM). Video memory 314 is a dual-ported video random access memory. One port of the video memory 314 is coupled to video amplifier 316. The video amplifier 316 is used to drive the cathode ray tube (CRT) raster monitor 317. Video amplifier 316 is well known in the art and may be implemented by any suitable apparatus. This circuitry converts pixel data stored in video memory 314 to a raster signal suitable for use by monitor 317.

Monitor 317 is a type of monitor suitable for displaying graphic images. In one embodiment of the invention, monitor 317 presents the gaming interface to the user so that the user can determine which parameters to enter into the system.

Computer 300 may also include a communication interface 320 coupled to bus 318. Communication interface 320 provides a two-way data communication coupling via a network link 321 to a local network 322. For example, if communication interface 320 is an integrated services digital network (ISDN) card or a modem, communication interface 320 provides a data communication connection to the corresponding type of telephone line, which comprises part of network link 321. If communication interface 320 is a local area network (LAN) card, communication interface 320 provides a data communication connection via network link 321 to a compatible LAN. Wireless links are also possible. In any such implementation, communication interface 320 sends and receives electrical, electromagnetic or optical signals that carry digital data streams representing various types of information.

Network link 321 typically provides data communication through one or more networks to other data devices. For example, network link 321 may provide a connection through local network 322 to local server computer 323 or to data equipment operated by an Internet Service Provider (ISP) 324. ISP 324 in turn provides data communication services through the worldwide packet data communication network now commonly referred to as the "Internet" 325. Local network 322 and Internet 325 both use electrical, electromagnetic or optical signals that carry digital data streams. The signals through the various networks and the signals on network link 321 and through communication interface 320, which carry the digital data to and from computer 300, are exemplary forms of carrier waves transporting the information.

Computer 300 can send messages and receive data, including program code, through the network(s), network link 321, and communication interface 320.

Computer 300 is typically configured to display the gaming interface described herein to the player so that the player may interact with that interface. The

5 calculations (e.g., those performed by the random number generator) are performed by a remote game server which has access to the gaming engine. In the Internet example, remote game server computer 326 might transmit a requested code for an application program through Internet 325, ISP 324, local network 322 and communication interface 320. For example, data derived by the gaming engine may be transmitted from the gaming engine source to computer 300 via communication interface 320. ISP 324 or any other source may contain containing computer readable code having a random number generator may function as the gaming engine. Thus, gaming engine 327 may be stored on any network node reachable by computer 300. For example, in one embodiment of the invention gaming engine 327 is associated with or located on game server 326.

Processor 313 may execute the received code as it is received, and/or stored in mass storage 312, or other non-volatile storage for later execution. In this manner, computer 300 may obtain application code in the form of a carrier wave.

Application code may be embodied in any form of computer program product.

20 A computer program product comprises a medium configured to store or transport computer readable code, or in which computer readable code may be embedded. Some examples of computer program products are CD-ROM disks, ROM cards,

floppy disks, magnetic tapes, computer hard drives, servers on a network, and carrier waves.

The computer systems programs, apparatus, and/or methods described above are for purposes of example only. An embodiment of the invention may be implemented in any type of computer system or programming or processing environment. Appendix A illustrates the invention and describes the functionality contained therein in accordance with one or more embodiments.

The invention also contemplates embodiments where multiple players may play against each other and the hosting entity (e.g., the house) may collect a commission regardless of which player won. In other embodiments the random chance event comprises any type of coin toss and may for example include multiple coins or multiple tosses. For example, the invention may be adapted so that the player can wager on the outcome of two coin tosses, three coin tosses, or any number of coin tosses. In the instance where multiple coins tosses are present the system calculates a given set of possible outcomes and odds based on those outcomes. These and other embodiments will now be described in more detail.

In one embodiment of the invention, players may play against other players instead of playing against the house (head-to-head play). Thus, players from all over the world can meet at a central location (e.g., a web site) and wager on against each other on random chance events (e.g., coin flips). So that players may readily communicate with one another, an embodiment of the invention contemplates the placement of a chat program on the gaming interface. In order for two players to

play against one another each player must have a balance equal to or larger than the amount they are going to wager against each other.

5 A first player may utilize the chat interface to chat with another player and thereby challenge a second player to wager on a random chance event. If the second player accepts the challenge, that player may be given the right to select the outcome of the random chance event (e.g., heads or tails) before the coin is tossed. The challenger (e.g., the first player) is then assigned to the remaining alternative. Once the parties agree to wager and both the first player and second player have committed their wager, the game is played. In one embodiment of the invention, the game initiates when the challenger selects the game action button (e.g., play button). Upon selection of the game action button the games server executes the random chance event, determines the outcome, deducts the appropriate amounts from the player's accounts, and displays a concurrent animation of the random chance event to both players (both players have access to the gaming interface). The system automatically credits and debits the balance to each player depending upon the outcome. The player who wins is charged a game fee (or commission) which is deducted from the winnings and credited to the hosting entity (e.g., the house).

20 The invention also contemplates an embodiment wherein the gaming engine may simulate multiple coin tosses. In this instance, more than two players can wager on the outcome of the random chance event. Thus multiple players can participate in the game. In order to being a first player is selected to be the "spinner". That player is responsible for initiating the random chance event (e.g., coin toss) and selects a

“spinners bet”. Each player can then wager on the outcome of the event. In one embodiment of the invention, the players each selects heads or tails and wait to see if their selection results in a win. The players abide by the rules of the game referred to as “TwoUp”.

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In accordance with another embodiment of the invention, the three players may participate. Each of the three players tosses a single coin, and the odd coin wins. In this embodiment, if all three players come up with the same result the toss is repeated until there is an oddman. This embodiment may also be adapted to incorporate any number of odd players where the player with the odd coin wins. In this embodiment the house can be represented as a Player, or it can be amongst three individuals, and the house continues to collect a commission from the winner. As is the case above each player must demonstrate an account balance large enough to cover the wager.

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Thus, a method and apparatus for wagering on a random chance event is described in conjunction with one or more specific embodiments. The invention is defined by the claims and their full scope of equivalents.